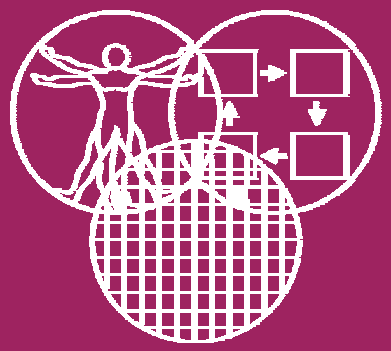

NewPoint Group
Management Consultants

California Department of Pesticide Regulation

Virtual Service Delivery Environment

Readiness Assessment

January 10, 2001

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Executive Summary

Findings

- Enablers to change:
  - Strong executive and management commitment, and deep knowledge of customer needs
  - Recent reorganizations and creation of teams to allow cross training, career development, and leadership experience
  - Trend toward leveraging staff to make more decisions
  - History of improvement teams and a proven desire to improve business processes before moving them to the Internet
  - Significant investments in technology infrastructure and applications that track business processes and hold information that is extremely valuable to DPR stakeholders
  - Stable and reliable network
- Inhibitors to change:
  - Unclear management accountability for, and slow reaction of some staff toward, recent improvement initiatives
  - No priorities for implementing improvement initiatives or technology projects ("Which ones do we do first?" – refer to **Appendix A** of this report). The DPR has more improvement ideas than it can implement.
  - Little or no formal project management culture, skills, or tools that could reduce the level of disruption from change
  - Large volumes of paper-based scientific data to meet evaluation requirements
  - Branch level control of enterprise-wide applications
  - Declining number of employees receiving training and declining total hours of training received
  - Inconsistent data quality, inconsistent design standards, and poor documentation of existing databases
  - Lack of repeatable processes (do it right once, then reuse, rather than reinvent each time)

Executive Summary *(continued)*

Conclusions

- ❑ Change readiness has improved recently
- ❑ Some DPR programs implement change well, while others appear more resistant to change
- ❑ Changing to a virtual service delivery environment will be very difficult for DPR unless:
  - Management creates a comprehensive improvement portfolio of authorized initiatives, which clearly allocates sufficient and skilled resources among the improvement initiatives to ensure appropriate resource leveling (e.g., prioritize projects, assign resources to project, bring project to closure)
  - Continuous improvement efforts are managed well and closely coordinated with all business units
  - Management can provide frequent, timely, and consistent communications to the organization. Understanding and belief in the change can create effective change agents among DPR staff.
  - Staff receive sufficient training (to improve performance on the present job by enhancing a learner's knowledge, attitudes, or skills) and education (training people to do a different job, either lateral or upwards)

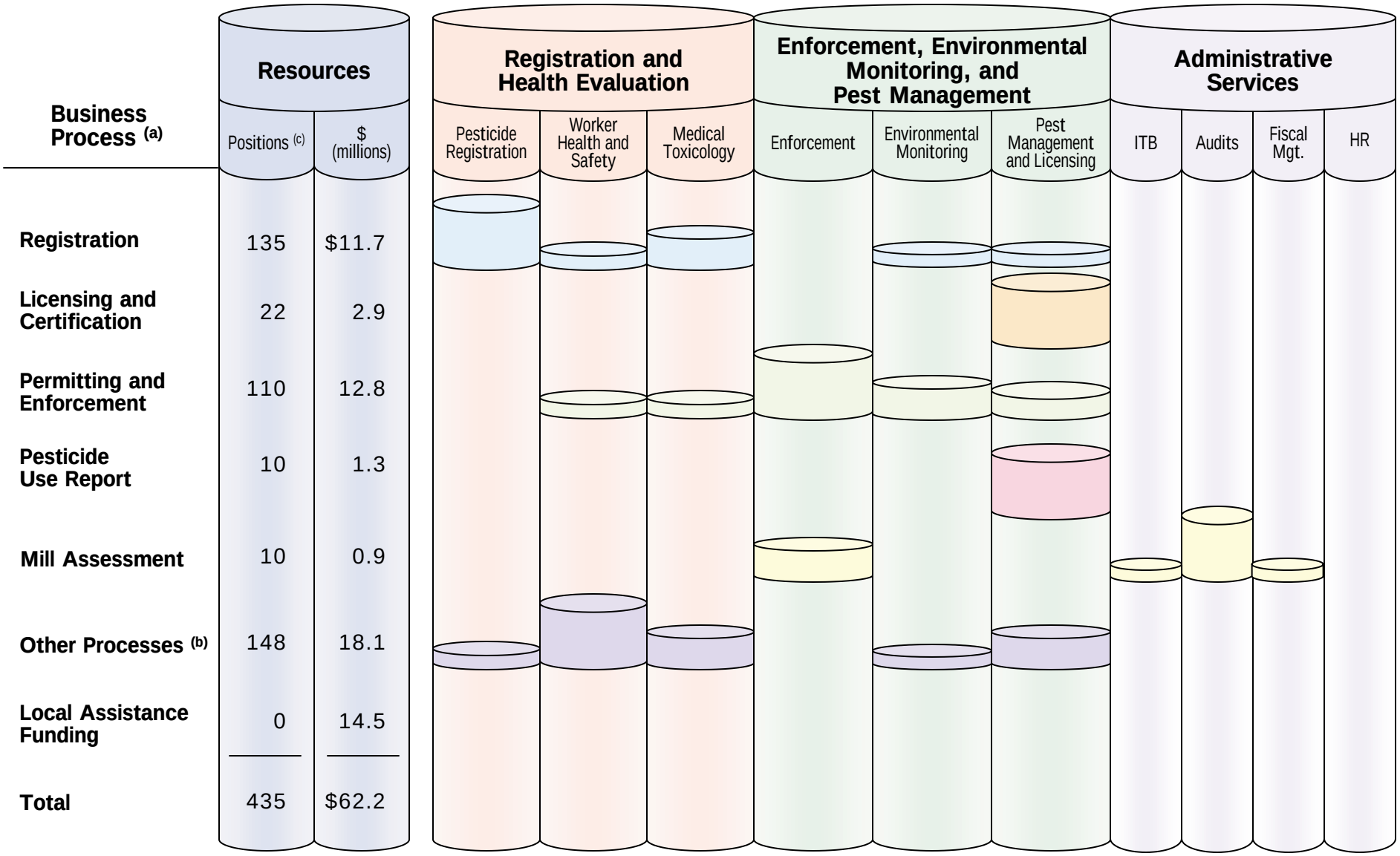
Executive Summary *(continued)*

Recommended Solutions

- ❑ Institutionalize project management
  - Establish a project management function to help improve project completion
  - Formalize plans for major projects, prioritize projects, assign clear responsibilities, measure project performance, provide tools
  - Encourage training for project managers and team members in project management principles and practices
- ❑ Facilitate and be disciplined regarding communication and knowledge to flow up, down, and across the department
  - Provide a means to share institutional knowledge (i.e., acquire, share, and use knowledge)
- ❑ Improve organizational agility
  - Create learning environment to support individual and institutional learning. This should include a strategy to train and educate employees for project management, process improvement, and change management.
  - Allow for flexibility and change, such as rapid cycle teams and "situational" leadership on short-term projects
  - Develop performance metrics for all major business processes to support the DPR mission and reward behavior that the DPR wishes to encourage
  - Outsource for skills and experience unavailable in State service
- ❑ Improve technology effectiveness
  - Prioritize and implement improvements already identified by staff
  - Invest in basic Web technology (content management tool, search engine, categorization tools, and interaction management systems for forms management)

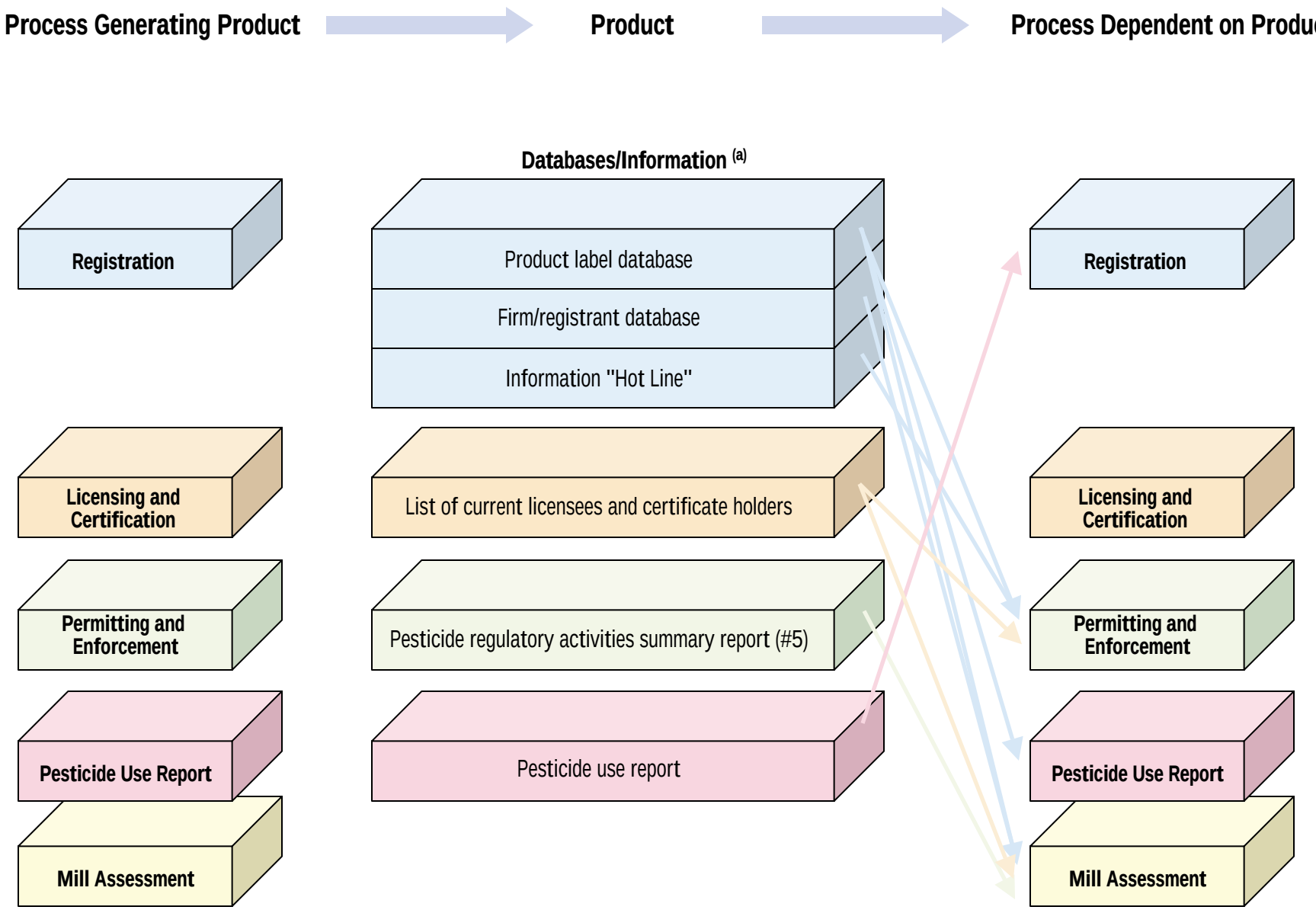
Business Process and Functional Organization Map

DPR Branch Involvement



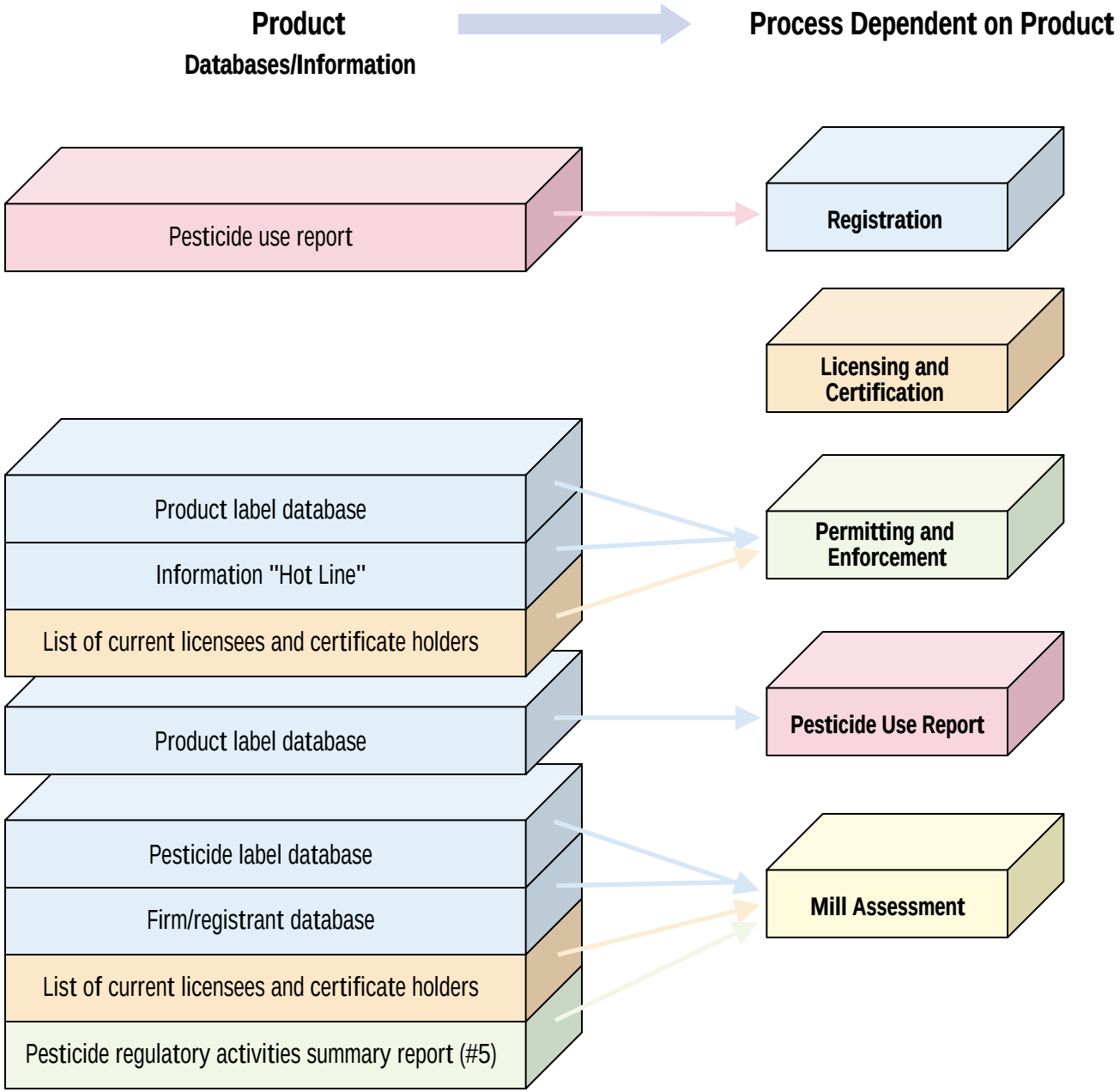
(a) All processes are supported indirectly by the Director's Office, Communications Office, Legal Office, Legislative Office, Office Services, Office of Policy Coordination and Continuous Improvement, and Special Projects and Public Outreach.
(b) Other processes primarily include SB 950 related functions, school/grants programs, and the environmental monitoring program.
(c) Includes all DPR authorized positions (i.e., both direct and allocated indirect).

Business Process Dependencies



(a) A total of six of the 67 products generated by the five business processes are inputs to another business process.

Business Process Dependencies *(continued)*



Readiness Assessment Steps

To assess whether the DPR is ready to change to a virtual service delivery environment, we:

- ❑ Reviewed DPR documentation of recent Department quality improvement efforts, including those to improve the following:
  - Pesticide registration process
  - Enforcement process
  - Mill assessment process
  - Data integration/quality
  - Communications (external and internal)
- ❑ Interviewed division assistant directors, branch managers, supervisors, and staff in order to:
  - Review results of previously completed or in-process improvements
  - Determine potential barriers to change
  - Identify suggested process improvements and enablers to change
- ❑ Interviewed eight external stakeholders in order to determine general information and service needs
- ❑ Documented recent changes to current business processes and results of those changes
- ❑ Reviewed planned investments in technology
- ❑ Interviewed information technology support staff to determine the adequacy of existing infrastructure, support capabilities, and staff skill levels to transition to a virtual service delivery environment

Factors Enabling DPR to Change to a Virtual Service Delivery Environment

- **People**

- Strong director/executive level commitment and desire to change
- Dedicated and knowledgeable personnel, with a deep knowledge of customer needs, process requirements, and needed improvements
- Registrant-specialization, rather than product-specialization, provides a single point of contact and builds stronger relationships with the registrants
- Trend toward leveraging staff to make more decisions
- Recent history of developing and participating in quality teams to improve customer service and operational efficiency
- Recent reorganization of Enforcement, Environmental Monitoring, and Data Management Division that freed up additional staff to provide direct service to customers
- Recent realignment of Registration Branch and creation of teams to allow cross training, career development, and leadership experience
- Selected personnel uncomfortable with recent change initiatives have left the organization

Factors Enabling DPR to Change to a Virtual Service Delivery Environment *(continued)*

❑ **Process**

- Large number of ongoing initiatives (refer to **Appendix A**) supports management and staff's strong desire to improve business processes in advance of delivering them on the Internet
- Recent shift to an externally focused organization from a formerly internally focused organization, consistent with providing information and services online
- Frequent interactions of DPR personnel with stakeholders, as well as a clear understanding of stakeholder information needs
- Quick management reactions to tactical issues facing the department, including ability to quickly get Governor's Office funding for e-government activities
- New funding model from Governor's office for e-government initiatives that allow cross-agency funding of infrastructure
- Willingness to take a controversial position, as long as it is defensible and supportable
- Performance measures for two of the five business processes
- Bar-coding and automated tracking of several registration activities

Factors Enabling DPR to Change to a Virtual Service Delivery Environment *(continued)*

- **Technology**

- Significant investments in databases, applications, and technology that track existing business processes and hold information that is extremely valuable to DPR stakeholders
- Intranet and e-mail capabilities that can support constant communication of change initiatives to all stakeholders
- Stable and reliable network

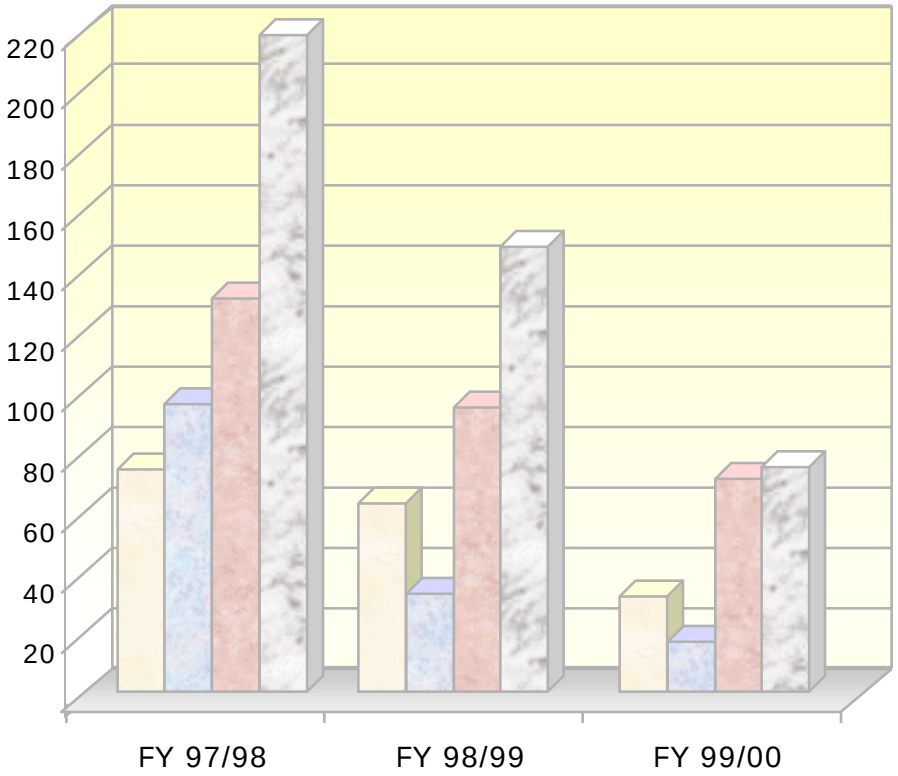
Barriers Limiting DPR's Ability to Change to a Virtual Service Delivery Environment

- **People**

- Unclear management accountability for, and slow reaction of some staff toward, recent improvement initiatives
- Negative impacts on staff morale when:
  - Staff do not understand the purpose of the change
  - Staff are not adequately participating in the change
  - The quality/frequency of communications from DPR management is inadequate.
- Little or no formal project management culture, skills, or tools that could reduce the level of disruption from change
- Insufficient employee training to develop knowledge and skills necessary to implement change, both number of hours received and types of courses attended (refer to training history summary on the following page)
- Number of training classes taken to keep pace with science and technology (a strategic plan performance measure) has declined 56 percent during the past two years
- No means yet developed by Department of Information Technology to ensure that IT management staff are properly trained and qualified (although required to by law)
- Difficulty attracting and retaining qualified IT personnel (not unique to DPR)

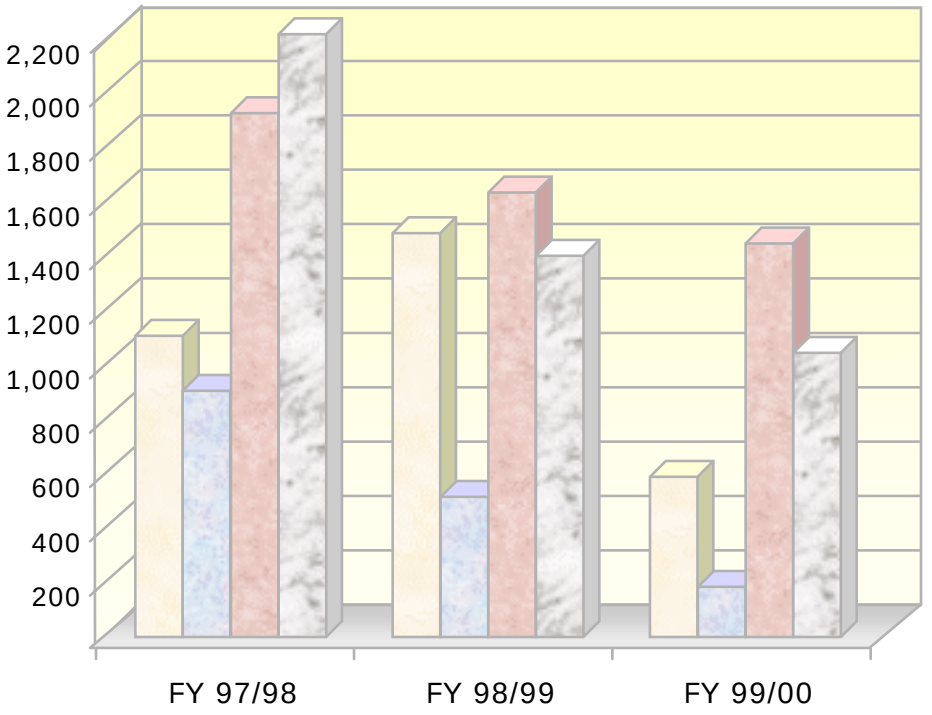
Relevant Training

Employees Receiving Training



Number of employees receiving training during the three years: **354**

Training Hours Received



Median hours of training per employee during the three years: **26**

Program Related Process Improvement Information Technology Other

Barriers Limiting DPR's Ability to Change to a Virtual Service Delivery Environment *(continued)*

❑ Process

- No priorities for implementing improvement initiatives or technology projects ("Which ones do we do first?"). The DPR has more improvement ideas than it can implement.
- Lack of formal coordination and individual project plans for the large number of improvement initiatives, despite an Office of Policy Coordination and Continuous Improvement that could have taken on such responsibilities
- Frequent redirection of resources away from recent improvement efforts ("The latest telephone call becomes the hottest project"), and little or no authority of project leaders to commit resources to complete a project
- Long history of performing tasks the same way, making it more difficult to modify the daily routine of job-related activities
- Insufficient communications from director's office through to staff about change efforts, which allows change information to become diffused, vague, and interpreted in arbitrary ways
- Required negotiations with influential associations for selected process changes (this also enables change by providing more relevant improvement ideas)
- Large volumes of paper-based scientific data to meet evaluation requirements
- Reliance on counties to implement selected changes
- No formal DPR change management process
- Lack of Department of Finance support for e-government projects critical to a broad base of stakeholders
- Year-long budget process
- Century-old personnel practices impede efforts to overcome labor shortage
- No formal process for ensuring that all website information posted is correct, current, and easy to find. The website contains a significant volume of out-dated materials and does not have current information for a wide variety of topics (PURs, residue reports, organization charts, and employees).

Barriers Limiting DPR's Ability to Change to a Virtual Service Delivery Environment *(continued)*

- **Technology**
  - No standard project management tool
  - Inconsistent data quality, inconsistent design standards, and poor documentation of existing databases
  - Insufficient application development methodologies and standards
  - Lack of infrastructure standards across all State departments, resulting in interoperability issues that interfere with e-government efforts. For example, Web-enabled geographic information systems will be difficult because of the need to align multiple, pre-existing county and multiple State departmental base maps and non-spatial databases (legacy systems were developed without data sharing in mind).
  - Branch-level control of enterprise-wide applications. This is not an issue of centralization vs. decentralization, but rather an issue of who sets priorities for required database modifications and how these modifications are planned and tested before putting into production
  - Significant improvements needed to DPR website (and already identified by the DPR):
    - Easier navigation
    - Robust search engine
    - Consistent look and feel of secondary and tertiary pages
    - Centralized document directory (to bring order to the content provided on website)
    - Elimination of unlinked pages.
  - No experience or infrastructure offering online services to stakeholders (through payment clearinghouse)

Conclusions

- Change readiness has improved recently:
  - Current DPR executives appear very ready for change and are supporting Internet-enabled delivery of information and services
  - Recent improvement initiatives have motivated certain DPR program staff to view change positively.
- Some DPR programs implement change well, while other appear more resistant to change:
  - Examples exist of DPR readily embracing and quickly implementing change. These include registration process changes, enforcement organization changes, and some technology upgrades.
  - Other examples exist of DPR taking much longer to implement or are currently on-hold. These include the enforcement initiative, communications initiative (*People and Pesticides* report recommendations on-hold), and information/data integration improvements.
  - With a history of not implementing a number of improvement initiatives, employees may expect little substance when more new changes are announced.
- Changing to a virtual service delivery environment will be very difficult for DPR unless:
  - Management creates a comprehensive improvement portfolio of authorized initiatives, which clearly allocates sufficient and skilled resources among the improvement initiatives
  - Continuous improvement efforts are managed well and closely coordinated with all business units
  - Management can provide frequent, timely, and consistent communications to the organization. Understanding and belief in the change can create effective change agents among DPR staff
  - Staff receive sufficient training (to improve performance on the present job by enhancing a learner's knowledge, attitudes, or skills) and education (training people to do a different job, either lateral or upwards)
  - Project management skills are developed and all major projects are formally managed to completion

Recommendations

❑ People

- Assign clear accountability for implementing each improvement initiative to a project sponsor who has authority to make decisions and commit resources
- Include in all annual manager performance evaluations the progress of improvement initiatives for which they are accountable
- Gain consensus and adequate input from branch managers prior to initiating a new change effort (such as an improvement initiative, organizational change, or technology project)
- Provide assistance to employees reluctant to change, and find work arounds to those employees unwilling or unable to change
- Develop a strategy to train and educate employees for project management, process improvement, and change management, within department and program budget constraints. Elements could include:
  - Required minimum number of training and education hours that each employee is encouraged to complete (e.g., 20 hours per year, 90 hours over three years)
  - Core training curriculum
  - Identification and cataloging of relevant courses that could satisfy the curriculum (including those from the State's training center and the Health and Human Services Agency Data Center, and those offered by the private sector that are specific to the department's individual business units)
  - Individual training and education plans developed annually by each employee for each fiscal year, and approved by a supervisor (identifying courses, dates, locations, and approximate costs)
  - Additions to operating expense and equipment budget to strengthen DPR training/education program
- Develop performance metrics to support the DPR mission and reward behavior that the DPR wishes to encourage. If people are asked to share information and work in a collaborative environment, then develop measures that promote cooperation and agility
- Contract for key IT skills, in particular Oracle database design and development

Recommendations *(continued)*

❑ Process

- Set priorities for all desired initiatives, and establish an implementation strategy for each preferred improvement initiative
- Form a technology investment review committee (TIRC) to review, prioritize, and oversee all technology investments (see **Appendix B** for more details)
- Establish a project management function to help improve project completion (see **Appendices C and D** for more details)
- Formalize project plans for any preferred improvement initiative that will consume more than 30 hours of effort:
  - Assign accountability
  - Allocate specific resources
  - Establish objectives
  - Phase the project
  - Mange issues/costs/ timelines
  - Monitor and report progress.
- Ensure that every major project or improvement initiative is coordinated, tracked, and brought to closure
- Anticipate potential issues, problems, and resistance to change. This may include issues arising because the DPR creates new roles for individuals whose activities are materially modified (e.g., roles of licensing and certification staff who now process renewal applications manually will change if this function is largely completed electronically by the licensee).
- Develop a periodic "project" newsletter, or incorporate news in a department newsletter or releases, to communicate the vision, objectives, progress, and participation both internally and externally

Recommendations *(continued)*

❑ Technology

- Standardize and utilize project management tools to formalize plans and manage resources, tasks, and schedules
- Prioritize and then implement improvements already identified by staff to improve:
  - Data quality
  - Data integration
  - Application development methodologies and documentation
  - Document directory structure (for managing content placed on the website)
  - Website navigation, search capabilities, and page layouts.
- Develop or obtain a system development life cycle (SDLC) methodology to guide all application development. The SDLC is the sequence of events in the development of an information system (application), which requires mutual effort on the part of end-users and technical staff. The California Integrated Waste Management Board has an SDLC approach that could be adopted by the DPR.
- Invest in basic Web technology. The Department should invest in what have now become basic tools for managing an intranet/internet. These include:
  - A quality Web publishing or content-management tool. This investment should allow department business units to manage content centrally, while authorizing end-users or work groups to update or publish to certain portions of the department's intranet or internet.
  - Search engines, categorization tools, and methods that allow end-users to personalize their "home" page
  - Interaction management systems to replace forms now used to obtain information from applicants and registrants.

Appendices

Recommended Improvements and Projects, by Business Process
(November 2000)

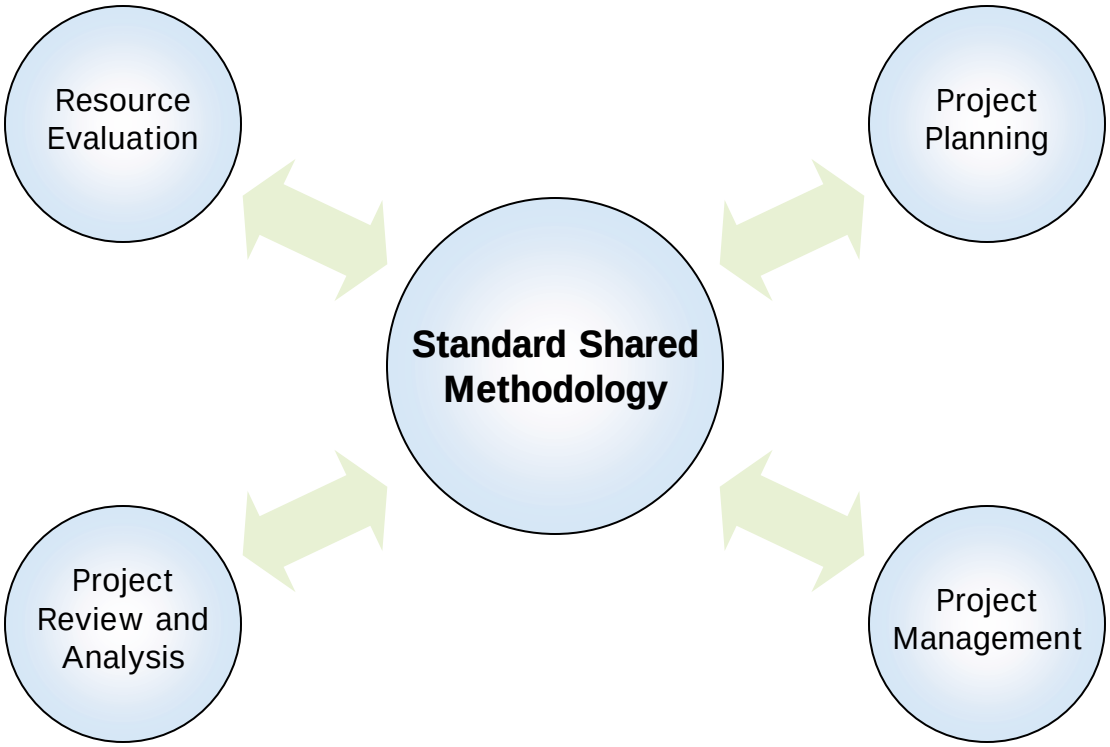
Source of Recommendation (a)	Business Process						
	Department-wide/Other (b)	Registration	Licensing and Certification	Permitting and Enforcement	Pesticide Use Report	Mill Assessment	Total (c)
1997 Strategic Plan Action Plan	19	7		4			30
Budget Change Proposals (FY 2001/02)	2	4		1	1		8
Business Process Group- Registration (minutes)		9					9
California Regulatory Reform (industry recommendations)		15					15
e-Government Proposal		3		1			4
EMPM Branch				1			1
Enforcement Initiative Implementation Plan	17			38	2		57
GIS User Group	4			8	3		15
Information Technology Summary - Enforcement Branch			5	10	1	1	17
Information Technology Summary - ITB	8						8
Information/Data Integration Quality Team Report	9						9
Mill Assessment process improvement documents						22	22
Operational Issues Committee Report	39						39
People and Pesticides Action Plan	18			9			27
Registration Branch Existing Workload Analysis		17					17
Total	116	55	5	72	7	23	**278**

(a) Recommendations identified as of November 2000. Other sources of recommendations may exist.
(b) Recommendations for the entire department and recommendations not identified as one of the five primary business processes.
(c) Types of Improvement:

- 40% are process improvements
- 15% are information technology improvements
- 7% are e-government initiatives
- 38% are other improvements (e.g., funding, training, regulations, collaboration with other agencies).

- The role of this council is to:
  - Define information technology goals and priorities in the context of the DPR's strategic plan
  - Review and select information technology projects from the various DPR business units.
- To ensure an enterprise perspective, members of the council should include business unit managers and the department's chief information officer. Business unit managers would be responsible for developing the "business case" for each proposal, obtaining approval from the DPR computer workgroup, and presenting proposals to the TIRC for review, priority setting, and approval.
- Each proposed project presented to the RIC should identify:
  - Name and brief description of the proposed project
  - Expected benefits
  - Expected one-time and annual recurring costs of the project (state, county, and contract costs). These are general estimates. A feasibility study report is required for any planned information technology project, and would include all expected costs and benefits of the project.
  - Name of individual responsible for managing all aspects of the project's implementation
  - Names of individuals who would be committed to work on the project
  - Approximate total hours expected from each person
  - Milestones for the project (including the feasibility study report and budget change proposal, as required)
  - Dates to complete each milestone
  - Funding source.

Five Governing Roles of Project Management



- **Standard shared methodology**: A consistent set of tools and processes for projects, providing a basis for measuring performance and acting as a communication and training vehicle.
- **Resource evaluation**: Assessment of people, funding, and time in order to validate business assumptions.
- **Project Planning**: Cooperative effort coordinated for project management, who serves as a competency center and library of prior plans.
- **Project management**: Consistent practices, frequent reviews, and a governing responsibility for projects. Can also provide actual project managers if none are available from department business units.
- **Project review and analysis**: A loop back to resource evaluation role to determine if project goals are achieved on time, on budget, and as designed.

Project Management Organizational Styles